

opening in the substrate base and flows over the top surface of the base and exits through the second said opening of the substrate base;

a generally rectangular shaped shield with at least one side wall shield, the said printed circuit board being disposed over said shield.

Abstract of the Disclosure

(0016) A heat sink assembly is provided to afford cooling for electronic components mounted on a circuit board. The assembly consists of a thermal conducting substrate base with a top and bottom side. Radiating fins are attached to the bottom side of the base. The fins are cooled by external air. The component on the circuit board is connected to the top surface of the heat sink base by means of thermal conducting spacers which create a gap between the bottom surface of the circuit board and the top surface of the heat sink base. A first hole is placed in the heat sink base and driving means are attached to the said base at the area of the first hole. A rotating fan is operatively attached to the said driving means in such a manner that when the fan rotates air is forced between the gap created between the circuit board and the heat sink base. A second hole is installed in the heat sink base. The air flowing from the fan is exhausted through the said second hole. A shield, preferably constructed of RF absorbing materials, is attached to the heat sink base in such a manner as to enclose the circuit board and channel airflow around the spacers.